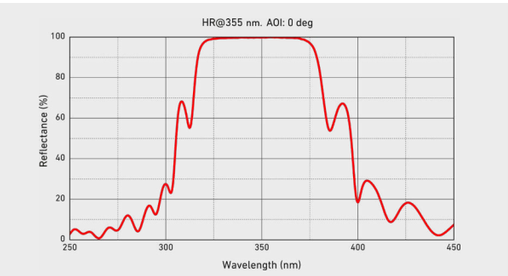
Laser line mirrors



Laser line mirrors exhibit high reflectance over a particular spectral range, extending <10% of the central wavelength, at a specific angle of incidence and polarization for non-normal incidence. Reflectance properties are based on the optical interference phenomena of reflections from multiple dielectric thin-film layers, which are carefully deposited on UV grade fused silica optical substrates.

Main features

- Mirror substrates fabricated from high-quality UV grade fused silica
- Standard substrate dimensions are ø25,4 x 5 mm
- 0° or 45° angle of incidence selection
- Designed for a high reflectance over a certain spectral range and angle of incidence
- Custom coatings, substrate material and dimensions are available upon request

Application examples

- Nearly loss-free light beam steering and folding in laser-based systems

Standard specifications

LASER LINE MIRRORS	
Substrate material	UV grade fused silica
Clear aperture	>85%
Face dimensions tolerance	+0/-0,15 mm
Thickness tolerance	±0,25 mm
Parallelism error	<30 arcsec
Protective chamfers	<0,35 mm at 45°
Surface quality	20-10 S-D
Surface flatness	<λ/8@632,8 nm
Laser induced damage threshold	>12 J/cm²@1064 nm, 10 ns (for 1020-1070 nm mirrors)

Standard products

MATERIAL	DIMENSIONS	WAVELENGTH RANGE	REFLECTANCE	AOI	SKU	PRICE
UVFS	ø25,4 x 5 mm	254-266 nm	>99,3%	0°	6375	75 €
	ø25,4 x 5 mm	340-355 nm	>99,5%	0°	6376	60 €
	ø25,4 x 5 mm	340-355 nm	>99,85%	0°	9280	110 €
	ø25,4 x 5 mm	385-415 nm	>99,5%	0°	6377	60 €
	ø25,4 x 5 mm	510-535 nm	>99,5%	0°	6378	60 €
	ø25,4 x 5 mm	510-535 nm	>99,9%	0°	9281	90 €
	ø25,4 x 5 mm	770-830 nm	>99,5%	0°	6379	60 €
	ø25,4 x 5 mm	1020-1070 nm	>99,5%	0°	6386	60 €
	ø25,4 x 5 mm	1020-1070 nm	>99,95%	0°	9282	110 €
	ø25,4 x 5 mm	1520-1570 nm	>99,5%	0°	6380	75 €
	ø25,4 x 5 mm	1890-1990 nm	>99,5%	0°	6381	85 €
	ø25,4 x 5 mm	2000-2100 nm	>99,5%	0°	6382	95 €
	ø25,4 x 5 mm	254-266 nm	Rs>99,5%, Rp>98,5%	45°	6383	75 €
	ø25,4 x 5 mm	340-355 nm	Rs>99,6%, Rp>99,2%	45°	6384	60 €
	ø25,4 x 5 mm	340-355 nm	Rs>99,85%, Rp>99,7%	45°	9283	120 €
	ø25,4 x 6,35 mm	510-532 nm	Rs>99,6%, Rp>99,0%	0-45°	15207	86 €
	ø25,4 x 5 mm	510-535 nm	Rs>99,6%, Rp>99,2%	45°	6385	60 €
	ø25,4 x 5 mm	510-535 nm	Rs>99,95%, Rp>99,85%	45°	9284	95 €
	ø25,4 x 5 mm	385-415 nm	Rs>99,6%, Rp>99,2%	45°	6387	60 €
	ø25,4 x 5 mm	770-830 nm	Rs>99,6%, Rp>99,2%	45°	6388	60 €
	ø25,4 x 6,35 mm	1020-1070 nm	Rs>99,6%, Rp>99,0%	0-45°	15208	86 €
	ø25,4 x 5 mm	1020-1070 nm	Rs>99,6%, Rp>99,2%	45°	6389	60 €
	ø25,4 x 5 mm	1020-1070 nm	Rs>99,95%, Rp>99,85%	45°	9285	120 €
	ø25,4 x 5 mm	1520-1570 nm	Rs>99,6%, Rp>99,2%	45°	6390	75 €
	ø25,4 x 5 mm	1890-1990 nm	Rs>99,6%, Rp>99,2%	45°	6392	85 €
	ø25,4 x 5 mm	2000-2100 nm	Rs>99,6%, Rp>99,2%	45°	6391	95 €